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ABSTRACT

Five groups were formed to investigate different aspects of the Child-Based Information System (CBIS) developed by the Central Susquehanna Intermediate Unit of Pennsylvania: (1) a data management group to assess the effectiveness of CBIS as an administrative support system; (2) a systems delivery group to evaluate the efficiency and effectiveness of the system design; (3) a curriculum/instruction group to evaluate the validity of the curriculum base and the strategy retrieval system; (4) a personnel group to assess the reactions of those persons involved with CBIS on a day-to-day operational level; and (5) a guardianship group to evaluate the impact of CBIS on parent and student attitudes and student performance. The findings and conclusions of the evaluation panels, based upon classroom observations, interviews with such primary and secondary information sources as teachers and administrative staff, and written documentation of the system, are grouped according to their respective topics. A series of recommendations concludes the report and the studies of the individual groups as well as the forms used in the implementation of CBIS are appended. (JD)

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AN EVALUATION OF THE CHILD-BASED INFORMATION SYSTEM

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June 30, 1977

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The CSIU

The Central Susquehanna Intermediate Unit, one of 29 intermediate units in Pennsylvania, was launched by Legislative Act 102 in May 1970. Commissioned as a regional educational service agency, the CSIU had considered its top priority to be the development and delivery of services which would be difficult, if not impossible, for its 17 individual school districts to provide for themselves.

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AN EVALUATION OF THE CHILD-BASED INFORMATION SYSTEM

Introduction

Dr. Patrick F. Toole, Executive Director of the CSIU, briefly described CBIS in the film entitled, "The Child-Based Information System:"

> Efficient and effective planning in education or in any other field depends upon information--information which is valid, reliable and of sufficient quantity and quality. In order to provide such information about both the learner and the material to be learned, the Central Susquehanna Intermediate Unit has developed a Child-Based Information System. This system is a planning tool which can increase the effectiveness of instruction. The system accommodates data on learner needs and progress; it offers a prospective on the future as well as the past; it makes available systematic answers to the questions, "What do I teach next?" and "How can this material be best presented to the students?" In short, CBIS is a planning tool--a planning tool for the classroom teacher.
>
> While the current focus of CBIS is the exceptional child, particularly the lower functioning child, the systems need and rationale are equally applicable to all educational programs, from the preschool to post-secondary level. In responding to a current need in special education, CBIS is also demonstrating the viability of an approach that may be successfully used in the regular school program. Such a demonstration may be able to make a substantial and long range contribution to improving the quality of education for all learners, not just the lower functioning student.

Background

The Child-Based Information System (CBIS) was designed as a guideline for instruction and a system for recording student progress and maintaining permanent records. The Central Susquehanna Intermediate Unit has supported its development in response to the movement of the seventies toward appropriate and individualized instruction for the exceptional child.

CBIS was formally conceptualized in 1973; during its first three years of existence, primary emphasis was necessarily placed upon design and development. Process evaluation was informal and was implemented to test the logic and efficiency of the system during its development. This informal evaluation phase was formative since it was intended to help program developers improve the conceptualization and design of the system.

CBIS includes several components, including a student data base, a curriculum base with the mechanics for tracking student progress, and an instructional strategy bank. The student data base includes basic information about individual students necessary for efficient and comprehensive record keeping. The curriculum base consists of several strands of sequentially developed instructional objectives which can and do vary according to the expectionality. Finally, the instructional strategy bank includes computer-stored instructional strategies which have been designed and evaluated by classroom teachers.

The development of CBIS has coincided with the emergence of state and federal mandates which require that all handicapped persons in public education programs have appropriate and individualized programs which are periodically reviewed. Public Law 94-142, "The Education for All Handicapped Children Act," for example, has definite implications for school districts. Under PL 94-142, state agencies and school districts are required to guarantee public education, designed for the individual handicapped child, at no cost to his parents or guardians, and to locate, identify, and evaluate all handicapped children requiring special education. In addition, written Individualized Education Programs (IEP's), designed specifically for each handicapped child, must be developed jointly with the parent or guardian, and, if possible, with the handicapped child participating in the development as well.

CBIS has gained some statewide and national interest because of its interface with these emerging state and federal mandates. Since substantial increases in federal funding have been projected for educating handicapped children, it was determined that the validity of the system and its use in fulfilling these mandates should be verified in a more formal manner.

An independent panel of evaluation experts was assembled in June, 1976, and given maximum flexibility to organize itself and its evaluation activities. CSIU staff members were assigned as resource persons and as liaison between the panel and CBIS staff. Five study groups were formed to investigate different aspects of CBIS. Those topics were defined as follows:

1) Data Management Group. To assess the effectiveness of CBIS as an administrative support system.

2) Systems Delivery Group. To evaluate the efficiency and effectiveness of the system design.

3) Curriculum/Instruction Group. To evaluate the validity of the curriculum base and the strategy retrieval system.

4) Personnel Group. To assess the reaction of those persons involved with CBIS on a day-to-day operational level.

5) Guardianship Group. To evaluate the impact of CBIS on parent and student attitudes and student performance.

Individual reports on each of these issues were prepared and are offered as appendices to this evaluation summary. Included in this report is a descriptive overview of CBIS, a summary report of the panel's findings, and a series of conclusions and recommendations.

CBIS Description

CBIS is in the advance stages of design and development. All components, however, have not yet been implemented. The description of the CBIS delivery system which follows includes all components of the design regardless of the stage of implementation. It is a description of the system as it is intended to be when fully operational.

The administrative data bank of CBIS includes basic information about individual students necessary for efficient and comprehensive record keeping. The data gathered include a name, identification number, birthdate, sex, social security number, district of residence, school type, parent or guardian name, address and phone number. Also included are evaluation and testing data, the exceptionality of the student, ethnic background, enrollment status, attendance, and progress reports.

An information form on each student is prepared by the special class supervisor, psychologist and teacher, each of whom is responsible for different information areas. The form is forwarded to the CSIU where the data is entered into the computer. (The reader is referred to Appendix VI for copies of all CBIS forms.)

During the 1976-77 school year, there were over 7,000 students entered on the CSIU's continuing census of exceptional children, the basic data bank of CBIS. Of these, 950 were involved in the instructional phase of CBIS and 88 CSIU teachers of special education used CBIS in their classrooms. Additional teachers were scheduled to use CBIS in both CSIU and member school district special education classrooms during the 1977-78 school year.

The instructional phase of CBIS includes a curriculum base, a computerized system of storing, retrieving and analyzing student progress data and a computerized instructional strategy bank.

At the beginning of the school term the teacher, psychologist and supervisor evaluate each child's level of development and design an individual program for the school year. The teacher, psychologist and supervisor plan each program in terms of a major life goal for the students, i.e., an educational prediction of the general lifestyle and capabilities of the student at age 30. The major life goal is continually open to revisions as more and better information about the child becomes available, including the child's evolving personal aspirations, academic or occupational skills, and the desires or wishes of parents or guardians (for further discussion, see Appendix II).

Having determined goals for the child, the teacher turns to CBIS's curriculum base for specific instructional sequences. These are grouped as objectives within particular strands which range from basics such as "feeding-eating" to the more rigorous "consumer skills" or "math." The teacher selects appropriate strands for each student on the basis of the student's current level of development and the major life goal. Within each strand, the teacher identifies particular objectives which the teacher feels the student can master in the given year.

Once the initial assessment is made and the appropriate strands and objectives chosen, it is possible to analyze a student's progress throughout the year in relationship to this baseline position. Every 45 school days each student is re-evaluated on each objective using CBIS progress codes. All progress information is recorded on optical scanning cards for computer storage and analysis. Analysis can relate a wide range of variables including class assignment, exceptionality, age, sex, accompaning handicaps, and degree of retardation. In addition, jargon-free parent reporting forms can also be generated.

CBIS's function as an instructional aid revolves around the strategy retrieval system. Each strategy is an instructional "how to"--a mini plan to reach a particular instructional objective. The bank of strategies is stored in the computer and is accessible to teachers in the field by means of computer terminals. The teacher may use any information from the computerized strategy bank. Information in the strategy bank is constantly updated. CBIS strategies are submitted by CBIS teachers. A review committee evaluates the proposed strategy before it is added to the computer bank.

Evaluation Procedures

An assessment of the CSIU's preschool program resulted in a recommendation to organize a group of non-biased professionals to evaluate the Child-Based Information System program. Although the initial recommendation was made in relation to the preschool program, it was soon evident that the total CBIS program should be closely and carefully evaluated.

Ten questions were suggested as being representative for the recommended investigation. They were:

1) Is there a need for such a system?

2) Is it based on sound educational philosophy?

3) Is it sound, conceptually and operationally?

4) Before field visits and based on 1), 2), and 3) above, what probabilities might be attached to the success or failure predictions a) for CBIS as a whole, b) or any one or all of its subsystems separately?

5) Is it cost-effective in teacher time and money?

6) Do the teachers believe in the system, and is the data collected accurately?

7) Are the strategies valid? (Are they acceptable according to present educational practices and law?)

8) Does it, in fact, undermine or enhance the teacher's ability to make professional judgments?

9) Does it improve the quality of the educational and/or training programs being offered?

10) How many professionals and paraprofessionals were involved in CBIS during 1975-76; who, specifically, were they; how many weeks was each person involved in the program; approximately how many hours per week did each person work on CBIS activities?

An evaluation panel was appointed by Dr. Patrick F. Toole, CSIU Executive Director, and was convened on June 29, 1976. Its members included:

Donald M. Carroll	Education Consultant, Donald M. Carroll and Associates (Former PDE Commissioner for Basic Education)
Karl R. Girton	President, Girton Sales Company (Former CSIU Board Member and Board President)
Dr. William L. Jones	Professor, Department of Special Education, Bloomsburg State College (Bloomsburg Board Member)
Dr. J. William Moore	Professor and Chairman, Department of Education, Bucknell University
Dr. Karl G. Rohrbach	Superintendent, Selinsgrove Area School District (Member of Regional "Right to Education" Task Force)

The panel was charged with verifying the validity of the CBIS program by identifying strengths and weaknesses and recommending ways to improve its design, delivery, and dissemination.

Primary information sources for panel members were the CSIU program and administrative staff most intimately involved in the design, development, and implementation phases of CBIS. They were instructed to provide an initial briefing for the panel and any further information at the panel's request. These primary information sources included Dr. Gary E. Reeser, Assistant Executive Director for Management and Administration, George Herman, Assistant Director for Special Education (Russell Gilbert, Director

of Special Education, was on sabbatical leave during the panel's evaluation of the system), G. Edwin Lint, Supervisor of Special Education, and Russell W. Guthrie, Director of Computer Services.

Secondary information sources were to be determined by the panel and could include CBIS users, teachers, district administrators, or any others who might provide relevant information. In addition, support staff for the panel was named to assist panel members to coordinate and fulfill their requests and needs for information about CBIS and to complete their investigations and reports. Support staff included Dr. John E. Lutz, Assistant Executive Director for Evaluation, Planning, and Curriculum, as Panel Coordinator, Ms. Susan B. Mathias, as Information Specialist, and secretaries and typists as needed by the panel for the completion of their reports.

Panel members met formally as a group six times: June 29, 1976, for receiving their initial charge; July 8, 1976, for identifying evaluation questions and concerns; September 14, 1976, for visiting special education classes where CBIS was being implemented; November 10, 1976, for interviewing teachers who have had some experience with the system; January 25, 1977, for reorganizing and determining study group writing assignments; and May 6, 1977, for reviewing and revising an initial draft of the final report. Between meetings, individual assignments (which included analyzing CBIS documents and interviewing primary and secondary information sources) were completed.

Each panel member served as chairman of one study group and member of a second. The purpose of each study group has been summarized with the list of the groups on page two of this report. Members of each group included:

1)	Data Management Group	Dr. Karl G. Rohrbach, Chairman	Karl R. Girton, Member
2)	Systems Delivery Group	Karl R. Girton, Chairman	Dr. William L. Jones, Member
3)	Curriculum/Instruction Group	Dr. J. William Moore, Chairman	Dr. Karl G. Rohrbach, Member
4)	Personnel Group	Dr. William L. Jones, Chairman	Donald M. Carroll, Member
5)	Guardianship Group	Donald M. Carroll, Chairman	Dr. J. William Moore, Member

Findings and Conclusions

The findings of the evaluation panel were based upon classroom observations, interviews with primary and secondary information sources, including teachers and administrative staff, and written documentation of the system. Findings are grouped according to the study group topics. Understandably, there was some overlap in the concerns addressed by the five groups which have been synthesized in the recommendations presented in the next section.

The conclusions were drawn from the findings of the five study groups. Imbedded in some of the conclusions were recommendations for improvements to the components of CBIS addressed by each group. A more detailed accounting of the observations and the resulting conclusions can be found in the study group reports, Appendices I through V (pages 12 through 35 of this report).

I. Data Management (To assess the effectiveness of CBIS as an administrative support system)

A. Findings.

1. CBIS was judged to be a useful information reporting system. Basic student data was easy to retrieve and easy to correct, and the safeguards to limit access and protect the confidentiality of records were well incorporated in design and implementation.
2. The design of CBIS met and exceeded the mandate of P.L. 94-142, the "Education of All Handicapped Children Act". The system provided for regular re-evaluation and reporting of student progress and for program modification based upon such re-evaluation.
3. The study group felt that CBIS was highly marketable as a management service.

B. Conclusions.

1. CBIS appeared to be an advanced system in relation to evolving state and federal mandates for the education of handicapped and exceptional children. Although its evolution may seem slow and tedious to its developers, CBIS appeared to be revolutionary in its impact on information reporting and retrieval.
2. CBIS has potential as an excellent system for reporting to parents on objectives and progress. (The guardianship study group found no evidence that this potential has been realized. No data had been collected on parents' reactions to the system.)
3. The management potential of CBIS for individual program cost analysis and monitoring teaching activities has not yet been fully realized.
4. The study group noted the potential of CBIS as a teacher accountability system, but discouraged this use of the system.

II. Systems Delivery (To evaluate the efficiency and effectiveness of the system design)

A. Findings.

1. The delivery system appeared to be a feasible method of assimilating and processing the massive data needed for both management purposes and individualized instructional requirements. (The volume of information generated under existing and pending legislation appears manageable only if processed electronically.)
2. CBIS served as a clearinghouse for contributions to the academic data base, including information from which the teacher could determine goals, objectives, and instructional programs.
3. CBIS provided standard evaluation and observation criteria to measure student progress over the total school experience it served as a common denominator in determining the progress of each child in the system.

B. Conclusions.

1. Computerization seems to be the most feasible approach to the management of the voluminous data required for CSIU program aspirations and for state and federal legal requirements.
2. It seemed quite clear in discussing CBIS with teachers and administrators that ongoing inservice education was essential. The user's working knowledge of the system, its potential, and of legislative mandates involved seemed to be necessary for the realization of CBIS objectives.
3. Management use of CBIS should increase as its benefits in time and cost efficiency become more visable.
4. The "garbage in--garbage out (GIGO)" phenomenon appeared to be no more threatening to CBIS than to any other system since quality controls have been planned and do exist.

III. Curriculum/Instruction (To evaluate the validity of the curriculum base and the strategy retrieval system)

A. Findings.

1. CBIS strands and objectives appeared to be useful in maintaining a record of the performance and progress of students as mandated by law.
2. The educational diagnostic value of CBIS emphasized the placement of students on an appropriate learning level within a strand. It did not provide a broad based system for diagnosing learning problems.
3. Some personnel expressed concern about the appropriateness of the strands for some students and groups of students. The strands could possibly become restrictive; teachers might become unduly dependent upon them, thus limiting teacher creativity.
4. There was no evidence that the strategies related directly to the diagnosis of individual learner problems.
5. Teachers commented that use of strategies must be flexible depending upon their determination of students' needs.
6. Supervisors, with some exceptions, tended to defend the value of the instructional strategies.

B. Conclusions.

1. The strands appeared to be useful in maintaining a record of the performance and progress of students, which is mandated by state law. The strands appeared to contribute both to the better identification of relevant objectives for individual learners and to the diagnosis of learner problems where diagnosis is limited to the related prerequisite knowledge for a given task.
2. If the individualization of instruction, assuming an appropriate educational objective has been designated for a learner, requires that the teacher diagnose the problem of the learner and then develop a strategy peculiar to the needs of the learner in that situation, then "canned strategies" have little value in teaching. The CBIS strategy file may foster such a "recipe" approach to instruction.

IV. Personnel (To assess the reaction of those persons involved with CBIS on a day-to-day operational level)

A. Findings.

1. Teachers, supervisors, and administrators agreed that the clerical work demanded by the "Education for All Handicapped Children Act" (P.L. 94-142) would be very difficult without a computerized system.
2. Supervisors felt that CBIS improved observation and evaluation of teachers and helped identify skills and strengths of teachers.
3. Supervisors found CBIS useful for helping to allocate resources.
4. Some teachers used CBIS as a guide or checklist, but did not consider it an instructional system in its own right.
5. Many teachers rated CBIS from good to excellent; they felt the system had improved their teaching.
6. Teachers working with more capable students reported the least use of the system.

B. Conclusions.

1. Most teachers, supervisors, and administrators seemed to appreciate the clerical and record-keeping advantages of CBIS. Teachers and supervisors should be continually updated on emerging mandates through inservice training to insure that they are aware of the rationale behind any changes or refinements to the system.
2. Some teachers seemed to be particularly supportive of the system because they had been involved in its development over the past few years. They felt that a regionally developed system was preferable to a commercial system developed by outsiders.
3. Teacher input and feedback appeared to be vital to the system. An effort should be made to organize that participation so all teachers have an equal opportunity to serve.
4. Teachers and supervisors appreciated the potential of CBIS to improve home-school relations via improved progress reporting. However, little or no parental feedback on the system had been received.

V. Guardianship (To evaluate the impact of CBIS on parent and student attitudes and student performance)

A. Findings.

1. The effect of CBIS on student performance could not be measured because no data had been collected.
2. No data existed on CBIS's impact on student attitudes. Typical attitudinal measures, however, would be difficult to adapt to the population of special students.
3. CBIS's influence on individualized programming occurred in the planning stage when teachers designed individual educational programs for each of the students. Classroom management was not noticeably changed.
4. Teachers and supervisors reported that individualization was better realized for the lower functioning student.
5. There was no data to assess whether the potential of CBIS to improve home-school relationships had been realized. Parental involvement has been lacking.

B. Conclusions.

1. The lack of data on student attitude and performance precluded any objective conclusions. It may be inferred that student performance improved because CBIS fostered precision in teaching. Also by inference, CBIS may enhance those teacher personality factors which promote positive student attitudes. CBIS allowed the student to progress at the student's own rate of speed and to experience success. This may promote more positive self-concepts and engender a positive attitude toward the system. A thorough evaluation of CBIS's impact on student performance should be undertaken.
2. CBIS's role in individualizing instruction occurred in the planning stage. The success of CBIS as a planning tool depends on the support and commitment of the classroom teacher.
3. CBIS has enormous potential to improve home-school relations. While its advantages as a communication tool seem obvious, parent attitudes could influence its effectiveness. It is unlikely that CBIS will spark sudden enthusiasm in the traditionally uninterested parent; the complexity of a multi-faceted educational program is, in some cases, difficult for parents to comprehend.

Recommendations

1. The Child-Based Information System should be recognized as a useful part of the larger educational system.

CBIS does not supplant the traditional instructional process, but augments it. The system was developed to improve education through management, tracking, planning and reporting.

a) It is imperative that CBIS be kept in proper perspective. It is a supplementary tool for education; it is not a self-contained, all encompassing educational, curriculum, instructional, or a management system.

b) Over-generalizing and over-rating the possibilities of CBIS can only mask the real needs of students and teachers, and should be avoided.

2. Continuing education is critical to the continuing use of CBIS and should be continued in a systematic fashion.

The need for additional and improved continuing education was recommended by each of the study groups. Teachers and supervisors need to be aware of the rationale from which CBIS was developed and is revised. They must be kept informed of evolving mandates and the effects of legislation on the system and on their day-to-day activities. Ongoing inservice is also needed in the use of CBIS so that strands and strategies can continue to be developed in response to student needs and so that uniform standards of evaluation are applied by those who monitor student progress.

a) Inservice training should focus on the strengths and weaknesses of the system, the potential for its use, and the process for revision.

b) Inservice should point out the limitations of the system so that teachers do not become overly dependent upon CBIS as a curriculum guide and instructional "recipe file".

c) Workshops should be provided to further develop teacher's capabilities to diagnose and remediate learner problems in relation to educational goals generated by teachers, specialists, and parents.

3. Strategies which are included in CBIS should be limited to those which are based on a sound theoretical rationale and which include statement of that rationale and the conditions under which the strategy is appropriate.

The concerns expressed by some personnel about the limited appropriateness of the strands for some students and groups of students, and teachers becoming dependent upon strands currently contained in the CBIS program should not go unheeded. If teachers are observed to be restricting their objectives unduly because of their dependency on strands, other methods must be employed to correct this concern.

a) The refinement and revision of existing strands should be continued.

b) New strands should be added as more is learned about the curricular requirements of students.

c) Attention should be given to the development of strands which place greater emphasis on abstract thinking and decision-making.

d) For teachers who are not using the strands, discussions should be continued with them to identify the possible reasons.

4. Administrative support activities provided through CBIS should be continuously monitored, and data should be obtained on their cost effectiveness.

a) To increase the accessibility of administrative and management data, one computer terminal should be available in each constituent district. Because each teacher uses the system in a unique way, however, information should be provided in paper copy as well as through the computer terminal. A looseleaf notebook to which additions and deletions could be made would seem to be most appropriate.

b) The required frequency of student evaluations does not necessarily apply to all levels of students--new time lines may be needed so that class assignments can be generated 30 days prior to the opening of the new school year; therefore, the time lines of the system should be reassessed.

c) Information within the data bank should be "tiered" or arranged according to difficulty level to facilitate its use by the instructional staff; for example, Level I strands, objectives and strategies might address the needs of the profoundly mentally retarded, while the Level III cluster might be appropriate for the educable mentally retarded.

d) Cost analysis to ascertain the cost effectiveness of CBIS should be completed.

5. A rigorous evaluation of CBIS and its relation to student performance should be undertaken.

No data on CBIS's impact on student performance exist. The panel recommends that a thorough study of CBIS's influence on student learning be launched. The study should compare student performance under CBIS against a similar student population not using CBIS. Cost comparisons would also be appropriate to such an evaluation.

Appendix I

Report of the Study Group on CBIS Data Management

Dr. Karl G. Rohrbach

Karl R. Girton

Background

Before the creation of CBIS, regional supervisors and teachers of the severely and profoundly retarded identified the need for a system to plan and evaluate the learning activities of their students. Prior to September 1, 1973 special educators used a paper program to monitor individual student progress. The system listed broad educational objectives and specific activities in the attempt to record learning progress. Eventually, the volume of required paper work suggested the need for computerization. Thus, CBIS developed in response to the needs of practicing professionals. The existing paper system was standardized and expanded to serve the educable mentally retarded, learning disabled, and speech, hearing and vision impaired.

CBIS was not initially developed as a management tool-it stemmed from an educational program need. Therein lies its strengths and weaknesses.

Findings

1. CBIS is an excellent information reporting system. Basic student data (name, residence, age, attendance, etc.) is easy to retrieve and easy to correct. Safeguards to limit access and protect the confidentiality of records are well incorporated in design and implementation.

2. Although not presently implemented, CBIS has great potential for individual program cost analysis.

3. The components of CBIS meet and exceed the mandate of P.L. 94-142, the Education for All Handicapped Children Act. CBIS provides for regular re-evaluation and reporting of student progress, and for program modification based on such re-evaluation. It is also an excellent system for reporting to parents on objectives and progress.

4. CBIS is an excellent management tool for monitoring teaching activiites. The system provides supervisors with an overview of a whole class and individual members in a class.

5. CBIS is an advanced system in relation to evolving mandates. To its developers, the evolution of the system may seem slow and tedious. But to others in the educational community, CBIS is revolutionary in its reach and impact on the whole area of information reporting and retrieval, specifically with respect to the demands of state and federal information requirements.

6. CBIS is a marketable commodity as a packaged system or as a management service.

Recommendations

1. An effort should be made, perhaps through inservicing, to attain consistency among teachers in grading student progress according to strands and objectives. The more consistent the criteria, the greater value the information will have over time.

2. Any trend to use CBIS as a teacher accountability system should be discouraged. Although a supervisor can presently monitor any teacher's use of CBIS, that capability should be de-emphasized to avoid undermining the effectiveness of the total system.

Appendix II

Report of the Study Group on CBIS Systems Delivery

Karl R. Girton

Dr. William L. Jones

Prologue

This report is one of five being prepared by sub-committees of the CBIS evaluation panel. As the various aspects of the Child-Based Information System addressed by the five committees intertwine, so will the information presented in this report interface with the information in other reports, primarily those of the groups considering data management and curriculum/instruction. It should be noted that some items which might seem obvious for this report to address have been deferred to the reports of other committees.

Section I--Introduction

The CBIS Systems Delivery sub-committee focused its primary attention on the methods used to assimilate, process, store, and disseminate the vast pool of information which is, in essence, CBIS.

Presented herein are:

A. A description of the CBIS delivery system as the system is intended to be when fully operational;

B. A listing of the strengths and weaknesses of that system as perceived by the committee members;

C. Recommendations made on the basis of those strengths and weaknesses; and

D. A final section including miscellaneous observation and conclusions which emerged as a result of the systems delivery study.

Section II--Program Description

For the purpose of analysis, the sub-committee separated the CBIS system into two components: the "administrative data bank" and the "academic data bank." Information for the following description of these program components was taken from three documents: a collection of diagrams describing the CBIS structure and forms used in the system; an overview/outline of the Child-Based Information System; and a September 10, 1976 memorandum from G. Edwin Lint responding to questions of CBIS panel members.

There are currently over 7,000 students entered on the CSIU's continuing census of exceptional children (the administrative data bank of CBIS). Of these, 950 are involved in the CBIS instructional program. Eighty-eight (88) teachers of special education are now using CBIS in their classrooms.

For the five month period, July to November, 1976, teachers used the strategy retrieval system an average of 117 sessions per month. The length of these sessions averaged 11 minutes. Computer time cost for strategy retrieval averaged $88.00 per month during that period.

An overview of the mechanics of CBIS would be incomplete without reference to the computer hardware used. The CSIU computer services staff uses the Bucknell computer center to implement CBIS. The hardware includes a Xerox Sigma 7 computer with a main memory of 96 bytes, a 1200 line per minute printer and a 1500 card per minute reader.

The CSIU's computer services office houses two five-channel frequency division multiplexers (FDM), eight automatic answer modems (300 BAUD) and one 8 by 16 port contender.

The Admistrative Data Bank

The administrative data bank includes basic information about individual students necessary for efficient and comprehensive record keeping. The data gathered include a name, identification number, birthdate, sex, social security number, district of residence, school type, parent or guardian's name, address and phone number.

Also included in this data bank are evaluation and testing information, the exceptionality of the student, enrollment status, ethnic background, attendance and progress reports.

An information form on each student is prepared by the special class supervisor, psychologist and teacher, each of whom is responsible for different information areas. The form is forwarded to the CSIU where the data is entered into the computer.

The system is designed to safeguard the confidentiality of student records. A superintendent, for example, cannot access information on a student outside of the superintendent's school district. The system's safeguards for confidentiality are based on "right-to-know" guidelines.

The system and its format were designed to meet the requirements of state and federal reporting forms--and to make retrieval of necessary data for the reporting forms as simple and expedient as possible. In addition, the CBIS format was designed to include the capability for meeting additional information requirements.

Other administrative and management needs could be met through the Child-Based Information System's administrative data bank. By having a teacher specify which instructional objectives would be enhanced and how many students would benefit from the purchase of requested materials, for example, the expenditure for those materials could be given program justification. Information from CBIS could also be made available for the orientation of parents, taxpayers, legislators or other constituents who are interested in reviewing or evaluating the educational system in relation to the expenditure of the tax dollar.

The Academic Data Bank

The academic data bank is sub-divided for discussion purposes into (1) pupil information, and (2) instructional aids.

(1) Pupil Information

Designing an individual program for each student demands precision in observation, evaluation, and prescription. CBIS provides the framework for such a process. A definition of terms may help to explain the day-to-day implementation of the system.

At the beginning of the school term the teacher evaluates each child's level of development and designs an individual program for the school year. The teacher plans each program in terms of a "major life goal" for the student. A major life goal is an educational prediction of the general lifestyle and capabilities of the student at age 30. For example, will Student A be able to hold a job, maintain a bank account, secure housing and life somewhat independently in adulthood? The teacher's professional judgment in response to those questions will help determine the year's educational program for the child. In addition to the teacher's professional judgment, the philosophical and political imperative in this country includes free choice from among multiple options, which includes both limitations and expanded opportunities based upon the characteristics of a particular exceptionality. The major life goal is thus continually open to revisions as more and better information about the child becomes available.

Having determined goals for the child, the teacher turns to CBIS's curriculum base for specific instructional sequences. These are grouped as objectives within particular strands. The strands range from basics such as "feeding-eating" to the more rigorous "consumer skills" or "math." The teacher selects appropriate strands for each students on the basis of the student's current level of growth and development and the major life goal.

If the teacher has projected, for example, that Student A will eventually be capable of holding a job, the teacher may include consumer skills among the strands selected for the student's individual program.

Within each strand, the teacher identified particular objectives which he or she feels the student can master in the given year. To carry the example further, within the consumer skills strand, the teacher may elect to focus on comparative shopping skills for part of Student A's program.

Once the initial assessment is made and the appropriate CBIS strands are chosen, it is possible for the teacher, psychologist or supervisor to compare and analyze a student's progress throughout the year in relationship to this baseline position.

Every 45 school days each student is re-evaluated on each objective, using CBIS progress codes. All progress information is recorded on an optical scan card permitting easy storage and analysis by means of computer. This permits analysis in relationship to a wide range of variables, including individual class, exceptionality, sex, age, accompanying handicap and degree of mental retardation, if such analysis is desired.

The system can provide reports for parents. Progress codes entered on the optical scan cards can be used to trigger the printing of an appropriate statement of the student's progress in jargon-free terms.

(2) Instructional Aids

CBIS's function as an instructional aid revolves around the strategy retrieval system. Each strategy is an instructional "how to"—a mini-plan to reach a particular goal.

Back to Student A and the hoped-for mastery of comparative shopping: Suppose the teacher is having difficulty getting the concept across to Student A. The teacher might consult the strategy file and learn that the "shopping cart game" is an effective method for teaching the concept.

The bank of strategies is stored in the computer and is accessible to teachers in the field by means of computer terminals. The teacher may use any information from the computerized strategy bank; and the teacher

needs to deal only with information pertaining to the specific instructional objective. Even though a strategy is part of the program presented by the computer to a CBIS teacher for review and consideration upon the teacher's request, the teacher's eventual use of the strategy is subject to the teacher's professional judgment.

Information in the strategy bank is constantly updated. CBIS strategies are submitted to a review committee by CBIS teachers. A teacher must observe two criteria in submitting a strategy. First, the strategy must relate to an existing CBIS objective. Second, the strategy must be something which has been used successfully in the teacher's classroom.

A teacher using CBIS is involved in intensive and continuous planning. Individual program designs require the teacher to plan thoroughly and prescriptively. At the same time, however, the CBIS program can reduce much of the paper work associated with the traditional lesson planning process. A teacher can record (and report) on a pupil's progress with more simplicity with CBIS than with traditional methods by using the system's numerical designations for the objectives and strategies being used.

Section III.--Strengths and Weaknesses of the Delivery System and Subsequent Recommendations

1. The administrative data bank--Management use of CBIS should increase as its benefits in time and cost efficiency become more visible through the model of CSIU special education administration.

For the purpose of increasing accessibility of management data, the committee recommends placement of one computer terminal in each constituent district.

2. The academic data bank--The delivery system currently in use is, in the judgment of committee members, the only feasible method of assimilating and processing the data needed for both management purposes and the individualized instructional requirements important to the effective education of exceptional children. This becomes more important in light of the PARC decision of the U.S. Eastern District Court in 1971 and recent enactment of Public Law 94-142, the Education for All Handicapped Children Act. The volume of information generated under existing and pending legislation which mandates individualized educational prescriptions for exceptional students appears manageable only if processed electronically.

Information within the data bank might be "tiered," or arranged according to difficulty level, to facilitate its use by instructional staff. For example, "Level I" strands, objectives, and strategies might

address the needs of the profoundly mentally retarded, while "Level III" strands, objectives, and strategies might be appropriate for the educable mentally retarded. Such a tiering would reduce the vast amount of information confronting the teacher prescribing individual programs for students.

Teachers currently meeting the record-keeping requirements of the law are faced with heavy demands for their involvement with clerical work. Given this problem, the committee believes that CBIS is an improvement, since the system requires only a minimum of clerical effort on a user's part. The committee believes that keeping the clerical involvement of teachers to the most minimal level is essential to to success of education of exceptional students.

Because CBIS is an innovative and unusual program--and there is no training program for the use of such a system in traditional teacher preparation institutions--those institutions planning to use CBIS will need to provide teachers, supervisors and other system users with extensive indoctrination and training. The user's working knowledge of the system, of its potential, and of the legislative mandates involved is necessary for the realization of CBIS's objectives.

Questions have also been raised concerning the "garbage in-garbage out(GIGO)" phenomenon. It appears that this phenomenon would be no more threatening to CBIS than to any other system and that the incidence of the "garbage in-garbage out" phenomenon is inversely proportionated to the user's working knowledge of the system. Furthermore, quality input controls do exist such as those briefly described concerning instructional strategies monitoring and evaluation.

CBIS provides uniform evaluation and observation criteria to measure a child's progress over his or her total school experience. Without CBIS (or a similar yardstick), the child's progress accounting is subject to variable and often undefined standards of evaluation.

If CBIS (or any instructional and evaluative program) is to be effective, teachers and supervisors must have adequate planning time to enable them to use the system properly. New time lines may need to be established so that class assignments and pupil information can be generated 30 days prior to the opening of the new school year. This would facilitate orientation for both teachers and supervisors.

One strong point of the system is that each teacher has a chance to contribute to the academic data base. Administrators and supervisors should recognize this opportunity and allow the teachers time to take advantage of it.

In order to provide ready access to the system's "academic data bank"--its pupil information--by teachers and supervisors who work directly with students, the committee is recommending that one computer terminal should be placed in each school building.

The information accessed through the academic data bank is used to reinforce and supplement individualized instructional programs. It is the committee's recommendations that the information be contained in a written, loose-leaf notebook--an annual print-out with quarterly updates which would be more effective and economical than placing a terminal in every classroom. A finding of this sub-committee, in conversations with teachers, is that much preparation for classroom activities is done outside of school. The loose-leaf notebook would make CBIS more portable for such preparation. Each notebook could contain those strategies appropriate for the needs of the particular class. Therefore, the committee recommends the use of such a notebook at the same time that it recommends that terminals not be placed in every classroom.

It appears that the system is functioning at this point, and indications are that as CBIS's users--teachers, supervisors, and administrators--understand more completely its purpose, methods of operation and potential, then the system's intended objectives will be more fully realized and it will become more cost effective.

Section IV--Miscellaneous Observations

The following observations have emerged during the study of the system's delivery and may not be directly related to system delivery:

1. The frequency of pupil evaluations must be changed to relate more directly to the projected progress of the pupil. For example, it might not be necessary to re-evaluate the profoundly mentally retarded students as many times during the year as it is to assess the progress of higher functioning students.

2. Teachers, in general, seem to like the print-out system as a means of reporting pupil progress to parents.

3. In some cases, teachers are using two reporting systems--one to the district within which they work and one to the computer. It is the feeling of the committee that these teachers are not receiving the full benefit of the Child-Based Information System.

Appendix III

Report of the Study Group on Curriculum and Instruction*

Dr. J. William Moore

Dr. Karl G. Rohrbach

The curriculum and instruction aspects of CBIS as described in the working draft entitled, *"Child Based Information System--Potential Script Material for a CBIS Film," (June, 1976)** provides three important components of instruction. They include: (1) educational strands which are defined as hierarchically related educational objectives, (2) instructional strategies judged to be useful to the teacher in providing the conditions necessary for the students to achieve the strands, and (3) an organizational system for the retieval of information which makes the placement of students on the appropriate sub-task level within appropriate strands and the selection of strategies thought to be appropriate for individualizing instruction related to the selected sub-task.

The report (1976) makes a number of claims about CBIS. The most general claim is that "CBIS, as a totality, is specifically designed to generate and individualize instructional programs for each student." Two claims subsumed in the general claim are "knowing what to teach is important, but it is also necessary to know how to teach it. In this regard, CBIS offers the ability to store and retrieve proven instructional methods (known as strategies) which relate to specific CBIS objectives." "CBIS makes traditional lesson planning obsolete."

While there are a number of additional claims made about CBIS, these three claims seem to summarize the hope and aspirations for CBIS with respect to curriculum instruction. The basic question is, "To what extent are these claims substantiated in the actual operation of CBIS?"

**The reference material appearing in italics was preliminary first draft material resulting from early idea sessions for a film script. This material was not used in the final script nor in the film since it included some information that conflicted with CSIU policy and administrative philosophy. The CSIU erred in including that "brain-storming" material in the base documentation given to the evaluation panel. Discussions between the principal writer of this Study Group Report and the CSIU Executive Director concerning the appropriateness of this citation (and any conclusions drawn therefrom) were held subsequent to the initial draft and prior to this final copy of the report. The CSIU disclaims any observations and conclusions included in this report that are based solely upon this reference.*

The general procedures used in evaluating the curriculum and instruction aspects of CBIS include: (1) reading two CBIS publications: "CBIS Sequential and Instructional Objectives for Special Classes," (1975); and *"Child Based Information Systems: A Working Draft," (1976),* and (2) interviewing teachers, supervisors of special education and administrators who have participated in the development and implementation of CBIS. In reading the documents and in interviewing the various professionals involved, the evaluation committee continued to question the extent to which CBIS is specifically designed to generate an individualized educational program for each student. In addition to this question a correlated question was asked, namely, "To what extent is it possible for CBIS to be designed to generate an individualized educational program for each student?"

Strands

Observations

The data presented, both in written form and verbally, by the professional staff indicate that CBIS has most nearly achieved its goals as an individualized educational program in the development of instructional strands and the corresponding sub-tasks, which allow the teacher to quickly place students on a sub-task within any given strand appropriate to his educational experience and probable maturation level. In this regard, several questions may be posed. First, are the strands, as educational objectives, maximally valid for all learners? Second, are the sub-tasks defined well enough so that students can be evaluated and placed on the appropriate level? Third, are teachers using the strands, and if not, why not? And, fourth, are the strands maximally valid as objectives for all students? The data collected in interviews with the professional staff indicate some difference of opinion.

Some supervisors express a high degree of satisfaction with the validity of objectives as contained in the strands.

The only reservation expressed by any supervisor, with regard to the validity of the strands, was that they may not be as valid for the academically more able student in the special education program. They qualified this concern, however, by saying that with the further development of the strands, they thought that they would be. A number of teachers also questioned the validity of the strands, particularly for the intellectually more able student. Their concern was not that the strands developed were not relevant, rather that they were (a) insufficient and (b) restrictive. Some teachers expressed the concern that the use of the strands was an "easy way out" because the easiest procedure for a teacher was to limit one's teaching objectives to the list of "canned" strands. Under these conditions the strands become highly restrictive where goals or educational objectives are concerned. The teachers emphasized the point that some of the more important objectives, whether they be cognitive or affective in nature, are identified in the process of teaching and may change for individual students or groups of students from one time to

another. To the extent that teachers found it easier simply to select strands and limit their teaching to them, they felt that the program could inadvertently restrict the selection of objectives which might be more important for the student. While there were some differences in opinion with respect to the adequacy of the sub-task for evaluating and placing students on appropriate levels, most of the teachers who used the strands felt that they were helpful.

It can be observed at this point that the diagnostic characteristic of CBIS seems to be limited largely to identification of the learning level of the student within the strands rather than a diagnostic system which would aid the teacher in explaining why learning has not occurred, if it had not.

It was interesting to note that while the administrative staff of the Intermediate Unit has mandated the use of CBIS, that some teachers indicated that they were not using CBIS. A number stated they periodically would sit down and fill out the forms required by the Intermediate Unit and that in the intervals in between, they used their own objectives and their own systems of instruction.

Conclusions

From these observations it may be concluded that the development of strands and the hierarchy of sub-tasks would seem to be a very commendable aspect of the CBIS program. The strands appear to be useful in maintaining a record of the performance and progress of students, which is mandated by State regulations. Both the developers and the users of the program seem to be, in spite of some disagreement, in substantial agreement in terms of the worth of this aspect of the program. Further, the development of hierarchically related tasks as related to a given objective or set of objectives (strands) is logically consistent with a task analysis approach to instruction that has been described by Robert Gagne (1977).

The strands do appear to contribute both to the better identification of relevant objectives for individual learners and to the diagnosis of learner problems where diagnosis is limited to the related prerequisite knowledge for that task. The claim for CBIS as being a complete individualized instructional program, implying that it provides a broad-based system for diagnosing learner problems, does not seem to be substantiated. Rather, the diagnostic value of CBIS would seem to be limited to simply the placement of students on an appropriate learning level within a strand. The system provides no basis for evaluating student performance as a basis for explaining why children have not or do not perform in desired ways. Although the testing and tracking components of CBIS and related activities of the school psychologist do contribute directly to psychoeducational diagnosis, CBIS does not include a complete subsystem with the specific capabilities for such activity. It is precisely this problem of over-generalization that may be mitigating against the wider acceptance of the program on the part of teachers.

The concerns expressed by one supervisor and a few teachers about (a) the limited appropriateness of the strands for some students and some groups of students and (b) teachers becoming dependent (thus limiting their teaching objectives) on strands currently contained in the CBIS program should not go unheeded. It is not enough to say that teachers should not "take the easy way out" and limit their teaching to strands currently contained in the program. It is what teachers are observed to do that counts, not whay they should do. Thus, if teachers are observed to be restricting their objectives unduly because of their dependency on strands, other methods must be employed to try to correct this concern.

Recommendations

1. That the refinement and revision of existing strands be continued.

2. That new strands be added as more is learned about the curricular requirements of students.

3. That attention be given to the development of strands which place greater emphasis on abstract thinking and decision making.

4. Inservice training programs should be developed which emphasize the potential dangers of becoming dependent on existing strands and which reward teachers for making meaningful deviations from the strands.

5. For teachers who are not using the strands, discussions be continued with them to identify the possible reasons. For example, some teachers may be rejecting the use of the strands because they are required to use other aspects of the program which they find unnecessary and unworkable.

Instructional Strategies

Observations

The claim was made that CBIS offers the ability to store and retrieve proven instructional methods which relate to specific CBIS objectives and that CBIS makes traditional planning obsolete.* An evaluation of samples of the strategies and discussions with the professional staff provided little support for either of the above claims. In fact, it could be suggested that the instructional strategy aspect of CBIS is one of the weaker aspects of the entire program. The supervisors, with some exceptions, tended to defend the value of the instructional strategies in the CBIS. They appear to believe the

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*See CSIU disclaimer, p. 21. See also comment excerpted from the completed CBIS film, p. 1 (Introduction).

strategies which have been developed are appropriate prescriptions for instructing a child in a way that would increase the probability that he achieve a given task in a strand. The implicit assumption seemed to be that the strategy selected was based on a meaningful diagnostic procedure. The extent to which a number of professionals apparently accepted this view was evidenced by the fact that two or more of the supervisors stated that "child centered" teachers who used the strands and strategy approach for six months to a year, even if they had no formal training in teaching, would be equally effective as teachers as those who had the same experiences with CBIS and who had been trained as teachers. One even commented that CBIS was an effective "teacher-proof" system of instruction. While all supervisors readily agreed that the strategy aspect of the program was not as well developed as the strands aspect, they did perceive it as a necessary and useful procedure for generating the instructional prescriptions.

Teachers were less enthusiastic about the use of strategies. In fact a number indicated that they did not use them at all. They commented that they did not work in most cases; they were a big, spicy series of supposedly new ideas--with eight out of nine having no value; strategies are not related to diagnosis, ninety percent are simply common sense; and children's needs need to be determined by the teacher, they cannot be determined by the computer.

Conclusion

There is no evidence that the strategies are in any way related to the diagnosis of individual learner problems. Rather, they appear to be little more than specific techniques thought to have been useful with individual students on given situations. This can be observed in the procedure used in developing those strategies. First, teachers are asked to describe specific procedures they have observed to be successful in teac-ing children a given task and submit them for inclusion in the computer bank. Next, a panel of experts then evaluate the procedures (strategies) and then make recommendations for their inclusion in the computer. Clearly they are not proven techniques as claimed in one of the written statements *(June, 1976)*. The implicit assumption basic to their use and development is that most children acquire new knowledge in much the same way and under the same conditions as most other students. Implicit is a second assumption that the effective teacher is one who has a knowledge of, or has access to, a wide range of instructional techniques. These are erroneous assumptions. The fact is that people, including special education students, do not necessarily acquire educational objectives in the same way. Further, where complex learning problems exist, and surely there must be many in "special education," the numbers of factors which must be considered in explaining why the child is not learning cannot be reduced to a fixed set of alternative strategies, no matter how sophisticated the

strategy. If the individualization of instruction, assuming an appropriate educational objective has been designated for a learner, requires that the teacher diagnose the problem of the learner and then develop a strategy peculiar to the needs of the learner in that situation, then "canned strategies" have little value in teaching. Certainly the teachers interviewed seemed to support this opinion.

It would seem that the encouragement of teachers to use strategies, with the implicit notion that they are related in some way to diagnosis, is a highly undesirable procedure if teacher diagnosis is considered important. Simply the procedure may inadvertently discourage teachers from diagnosing and generating their own strategies necessary for resolving the learning problems of the child. This is particularly true for the lazy or incompetent teacher who finds that applying recipes (even when they do not work) requires less effort than the difficult task of diagnosing and generating strategies peculiar to the individual instructional requirements of the child. The "canned recipe" approach to instruction is antithetical to an effective diagnostic approach to instruction. Instead of Intermediate Unit staff encouraging a greater dependency on the "canned recipe" approach, they should be using every procedure available to discourage it. If teachers are observed to be ineffective in diagnosing and remediating the complex problems of the special education child, one should not reinforce the very behaviors which mitigate against effective diagnosis (as the strategy system will surely do). Rather, workshop and inservice training procedures should be established, as a part of CBIS, to increase the teacher's ability to diagnose individual learner problems and to construct instructional procedures which are logically consistent with the individual diagnosis.

If teaching is, in fact, problem solving, then there is little likelihood that "canned" strategies will ever be developed which will be of use in the classroom. Those who believe that the use of strategies "out date lesson planning" should take a second look at what is effective instruction.

The attempt to superimpose the use of strategies on teachers may be in part the reason many teachers tended to reject even the desirable aspects of CBIS.

Recommendations

1. The strategy aspect of the CBIS be discarded.

2. Additional workshops be held to help teachers and supervisors define both advantages and the limitations of CBIS.

3. Literature describing CBIS and workshop programs should make clear that the individualization of instruction and diagnostic aspects

of CBIS is limited to and should be limited to, the placement of students on the appropriate sub-task level in the appropriate strand.

4. Workshops should be provided to further develop teachers' capability in diagnosing and remediating learner problems in relation to educational goals selected from the strands as well as goals generated by the teachers.

Summary and General Recommendations

1. Because the strands do provide a means of identifying the level of performance of students on a number of educational goals and since record keeping with respect to placement and progress is both desirable and necessary, this aspect of the program should be emphasized to a greater extent. Certainly the computer, as a means of ready access to this critical information, seems to be particularly useful to the teacher. It is recommended that greater emphasis be given to this aspect of the program.

2. There seems to be great variation in the teachers' use and respect for the program. Attention should be given to possible reasons for these variations:

a. CBIS should be constantly evaluated to insure that educationally unsound practices are not imposed on teachers.

b. Teachers should be given the time and assistance necessary for utilizing the desirable aspects of the program.

c. Inservice training emphasizing the desirable aspects of CBIS and the limitations should be provided. Attention must be given to determining why teachers are unhappy, even if they cannot articulate the problem.

d. Workshops should be held for teachers and supervisors to (1) expand the strands, both the number and existing strands, and (2) learn to generate objectives for classroom use, in addition to those contained in the strands.

e. Supervisors and teachers should develop a better understanding of educational diagnosis, particularly for special education students, and not limit it to the appropriate placement on an educational strand or the use of psuedo-diagnostic techniques.

Appendix IV

Report of the Study Group on Personnel

Dr. William L. Jones

Donald M. Carroll

Purpose

The purpose of this report is to review the success of the Child-Based Information System as seen by those regularly and directly involved in its operation; namely, teachers, supervisors, administrators, and support staff. Although the findings are grouped by position, it should be noted that there is considerable overlap in the assessments expressed by different groups of personnel.

General

CBIS is being used successfully as an information storage and retrieval system for both administrators and teachers. Its information range covers basic data about individual students and long range curriculum records. Teachers and administrators agree that the clerical work demanded by P.L. 94-142, the Education for All Handicapped Children Act, would be nearly impossible without a computerized system. CBIS provides the means to store and retrieve information accurately, quickly and easily.

CBIS is an indispensible tool for recording background data and educational descriptions of individual students. Its advantages include the capacity to describe individual needs and program objectives and to report progress in an easily understood language. Instructional objectives can be sequenced to meet specific objectives, thus facilitating individualized programming.

Reports to parents are easily generated and can even include suggested activities which the parent can apply in the home. The system stores information on individual skill and readiness levels as well as referral and placement records. These data include groupings within a class and an overview of class placements.

Findings

Administrators

CBIS is useful at all levels, but most helpful for the low functioning child.

Administrators are just beginning to see the vast applications of CBIS and are eager for further refinements for research purposes.

Supervisors and Other Resource Persons

Supervisors appreciate the ready access to information via computer terminals.

The system is useful in the allocation of resources such as teacher aides, instructional equipment, specialists, etc.

CBIS is an aid to class and individual placements. Supervisors feel that they are better realizing the skills and strengths of their teachers because CBIS improves observation and evaluation.

CBIS is helpful in validating measurement techniques used in the classroom.

The information system allows supervisors to compare training methods applied in institutions and public schools.

CBIS is a means of recording goals and progress for each student, allowing better opportunity to evaluate the results of instructional planning.

Teachers

The opportunity for teacher input in the initial stages of CBIS development was appreciated; continued teacher input is vital to the system's success.

Communication to and from teachers continues to be important.

Teachers use of CBIS depends on attitude, personality, and the teacher's orientation to the system. Supervisors play a key role in resolving difficulties of this nature.

Inservice workshops geared to initial orientation and updates were well received by the teachers.

The variety and range of the system's use seem limited only by the imagination and ingenuity of teachers and supervisors. Guidance from supervisors was appreciated.

Teacher accountability improves with CBIS.

Teachers used CBIS as a guide or checklist, but do not consider it an instructional system in its own right.

Teachers seem to feel free and appreciate the freedom to "do their own thing."

Some teachers feel inconvenienced by the record keeping demands of the system. However, they do realize that such documentation is necessary under the new mandates and for program accountability.

The system in general has worked better than teachers expected, but it continues to need refinement.

Teachers feel that a regionally developed system is preferable to a commercial system developed by outsiders.

The amount of use by individual teachers varies, but the system is flexible enough to allow for individual differences.

CBIS does not replace teacher skills, but is a supportive tool.

Teachers working with more capable students have the least use for the system; however, they appreciate the written manual even though they do not frequently use the computer terminals. Perhaps more and better orientation is needed for teachers of higher functioning students in regard to possible use.

Teachers find that "behavior management" strands are lacking in the system.

CBIS should also have more life skill strands (i.e., trade skills) and in general should include more strands for the higher level student.

CBIS does not change the teacher-student ratio, but might allow one teacher to support more teacher aides and to work with more students at low functioning levels.

Many teachers rate CBIS good to excellent. Their general feeling is that the system has improved their teaching. They have a better picture of the results of their efforts.

Parental feedback and input have been lacking, but should improve with the newly devised reporting system.

Teachers found that CBIS helped to avoid curriculum gaps.

Teachers generally find that CBIS is a good curriculum guide. The only restriciton is the time required. Most appreciate that the system has been streamlined to make its use as easy as possible.

Teachers generally defend CBIS.

Recommendations

Teachers should be continually updated on emerging mandates through inservice training to insure that they are aware of the rationale behind any changes or refinements to the system.

Teacher input and feedback are vital to the system. An effort should be made to organize that participation, so that teachers have an equal opportunity to serve in various capacities.

Teacher participation should be encouraged and rewarded, but not forced.

A written CBIS manual should continue to be available to teachers.

Confidentiality and accuracy of information stored in the computer should be continuously monitored.

Inservice sessions should be held just before the opening of school, so that information will be fresh in teacher's minds as they start school each fall.

Supervisor support and administrative knowledge of the system's operation, from its effect on each child to the cost and management concerns, are essential.

Summation

Every effort should be made to insure that the Child-Based Information System continues to be practical and feasible, balancing teacher time and student needs.

Channels of effective communication to and from teachers, students, and parents are vital.

Appendix V

Report of the Study Group on Guardianship

Donald M. Carroll

Dr. J. William Moore

Introduction

Guardianship refers to the humanistic emphasis included in CBIS; it includes the evaluation of student progress and involvement of parents. Three questions will be discussed in terms of evaluation possibilities, findings to date and recommended procedures. Those areas are:

1. How does CBIS affect student attitudes and performance?

2. Does CBIS improve individualized programming?

3. How does CBIS influence home-school relationships?

The sub-committee findings are based on interviews with key personnel and classroom observations.

Student Attitudes and Performance

Performance. The effect of CBIS on student perfomance cannot be determined at this time because no data have been collected.

It can be argued by inference, however, that student performance has improved because:

1. CBIS fosters precision in teaching which has a positive effect on student learning, and

2. CBIS is a refined vehicle to report progress and put a "handle" on student performance.

Attitude. Again, no data exist on CBIS's impact on student attitudes. It should also be noted that typical attitudinal measures (incidence of absenteeism, vandalism, etc.) are difficult to adapt to the population of special students.

By inference two possibilities present themselves for consideration:

1. Teacher personality is more of a factor in student attitudes than curriculum. Because CBIS focuses on improving teacher effectiveness, the system may enhance those personality factors which promote positive student attitudes.

2. CBIS allows the student to progress at his or her own speed and to experience success. This may promote more positive self-concepts and engender a positive attitude toward the system.

Individualized Programming

This section must be prefaced with the observation that educational research has yet to prove that individualized instruction improves student performance.

Traditionally, special education has been characterized by a tendency toward individualized programming. Efforts towards individualization in the past have often failed because of the cost in dollars, time, personnel and materials. If used according to design, CBIS can overcome these obstacles.

An observer cannot differentiate a CBIS class from a non-CBIS class in an on-site visit. Classroom management is not noticeably changed. Group instruction is commonly used in CBIS special classes. CBIS's influence on individualized programming occurs in the unobservable planning stage, when the teacher designs an individual educational program for each student.

The system also individualizes progress accounting and reporting. Individualization is more optimally realized among the lower functioning students for whom the universe is narrowly defined.

The success of CBIS as a planning tool depends on the support and commitment of the classroom teacher. Teachers report that they do not feel stifled by CBIS. Rather, the system seems to provide a measure of confidence for the beginning teacher who may be unsure of the precision of his or her curriculum planning.

Home-School Relationships

CBIS has enormous potential to improve home-school relations on three planes:

1. It allows the teacher to explain to the parents what goals the educational program is trying to help their child reach.

2. It reports progress toward those goals.

3. It can involve parents in the reinforcement of learning at home.

There are no data available to assess whether the potential of CBIS in this area is being realized. There is some evidence reported by teachers that the specificity of CBIS goals and objectives improves communication in parent conferences.

While its advantages as a communication tool seem obvious, parent attitudes influence its effectiveness. It is unlikely that CBIS will spark sudden enthusiasm in the traditionally uninterested parent and the complexity of a multi-faceted educational program is, in some cases, difficult for some parents to comprehend.

If the parent chooses to be actively involved as a consumer advocate, CBIS facilitates that parental role.

Recommendations

1. With respect to home-school relations, this sub-committee recommends that parents be involved at some point in the design of their child's individual educational program (IEP).

2. The sub-committee recommends that a thorough evaluation of CBIS's impact on student performance be undertaken. The study should include a measure of performance compared to non-CBIS students and cost per child comparisons.

It is further recommended that the methodology used by Hays, Cober, and Cho in a study of special education in Pennsylvania, be adapted to the CBIS evaluation.

Reliable student attitude measures are difficult to design in the case of special students and, in the overall assessment of this program, seem less important.

Appendix VI

Forms Used in the Implementation of CBIS

CHILD BASED INFORMATION SYSTEM - STUDENT INFORMATION

DATE ___/___/___

OFFICE USE

SIDE 1 - PSYCHOLOGISTS/SOCIAL WORKERS/DATA GROUP - DO NOT WRITE IN SHADED AREAS

RECORDER _____

IDENTIFICATION

ACTION
- ☐ NEW
- ☐ CHANGE
- ☐ DELETE

STUDENT No.

STUDENT LAST NAME

STUDENT FIRST NAME

BIRTH DATE (MONTH DAY YEAR)

SEX (M/F)

GRADE LEVEL
- ☐ PRE-SCHOOL
- ☐ ELEMENTARY
- ☐ SECONDARY

DISTRICT OF RESIDENCE

SCHOOL TYPE
- ☐ PUBLIC
- ☐ PRIVATE-TUITION
- ☐ PRIVATE-STATE TUITION
- ☐ WELFARE SUPPORTED
- ☐ PRE-SCHOOL AGENCY
- ☐ OTHER

SERVICE AGENCY

CODE

STUDENT SOC. SEC. No.

PARENT/GUARDIAN
FIRST NAME, SPACE, LAST NAME

HOME STREET ADDRESS

CITY, TOWN

ZIP CODE

TELEPHONE NUMBER
AREA

EVALUATION/TESTING

ACTION
- ☐ ADD

CHANGE DATE (MONTH DAY YEAR)

DATE LAST DUE PROCESS SERVED (MONTH DAY YEAR)

☐ DUE PROCESS ACCEPTED? Y/N

DATES OF LAST EVALUATIONS
- EDUCATIONAL (MONTH DAY YEAR)
- PSYCHOLOGICAL (MONTH DAY YEAR)

SCHEDULE NEXT EVALUATION (MONTH YEAR)

PLACEMENT TYPE

CODE

SP. ED. PROGRAM

CODE

TEST NAME	TEST No.	TESTING DATE (MONTH DAY YEAR)	SCORE
1.			
2.			
3.			
4.			

CENSUS

ACTION
- ☐ ADD

CHANGE DATE (MONTH DAY YEAR)

CHECK EXPECTED EXCEPTIONALITIES
- ☐ MENTALLY RETARDED
- ☐ PHYS. HANDICAPPED
- ☐ BRAIN INJURED (LD)
- ☐ BLIND
- ☐ PARTIALLY BLIND
- ☐ DEAF
- ☐ HARD OF HEARING
- ☐ SPEECH HAND.
- ☐ APHASIC
- ☐ S. E. D.
- ☐ GIFTED
- ☐ OTHER

ENROLLMENT STATUS
- ☐ FULL TIME
- ☐ PART TIME
- ☐ I U HOMEBOUND
- ☐ DIST. HOMEBOUND
- ☐ COMBINED HOMEBOUND

ETHNIC BACKGROUND
- ☐ AMER-IND./ALASK-NTVE
- ☐ ASIAN/PACIFIC-ISLND
- ☐ BLACK (NON-HISPANIC)
- ☐ HISPANIC
- ☐ WHITE (NON-HISPANIC)
- ☐ OTHER

- ☐ 1305
- ☐ 1306

☐ FULL TIME AID ASSIGNED? Y/N

PRIMARY TEACHER NAME

NOTES

ACTION
- ☐ ADD
- ☐ DELETE

1. _____
2. _____
3. _____
4. _____

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42

CHILD BASED INFORMATION SYSTEM - STUDENT INFORMATION

DATE ___/___/___

OFFICE USE

SIDE 2 - SUPERVISORS/TEACHERS/AIDES/DATA GROUP - DO NOT WRITE IN SHADED AREAS

RECORDER _____

IDENTIFICATION

ACTION
- ☐ NEW
- ☐ CHANGE
- ☐ DELETE

STUDENT No.

STUDENT LAST NAME

STUDENT FIRST NAME

BIRTH DATE (MONTH / DAY / YEAR)

SEX (M/F)

GRADE LEVEL
- ☐ PRE-SCHOOL
- ☐ ELEMENTARY
- ☐ SECONDARY

DISTRICT OF RESIDENCE

SCHOOL TYPE
- ☐ PUBLIC
- ☐ PRIVATE-TUITION
- ☐ PRIVATE-STATE TUITION
- ☐ WELFARE SUPPORTED
- ☐ PRE-SCHOOL AGENCY
- ☐ OTHER

SERVICE AGENCY

CODE

STUDENT SOC. SEC. No.

PARENT/GUARDIAN
FIRST NAME, SPACE, LAST NAME

HOME STREET ADDRESS

CITY/TOWN

ZIP CODE

TELEPHONE NUMBER
AREA

ATTENDENCE

ACTION
- ☐ ADD

CHANGE DATE (MONTH / DAY / YEAR)

CHECK TRANSACTION TYPE
- ☐ E1
- ☐ RE-ENTRY
- ☐ E2
- ☐ WITHDRAWAL
- ☐ LATE E1
- R/W CODE

ENTRY/WITHDRAWAL DATE (MONTH / DAY / YEAR)

SCHOOL DAY

DISTRICT OF RESIDENCE

SP. ED. PROGRAM

RESI-DENT? Y/N

CALENDER (CHECK ONE)
- ☐ 180 DAY
- ☐ 220 DAY

FILL IN PERCENTAGE OF CHILD'S TIME SPENT IN THESE AREAS →

% I.U. SPECIAL | % DISTRICT SPECIAL | % DISTRICT REGULAR | % VO-TEC CLASS | % OTHER

GRADE REPORTING

ACTION
- ☐ ADD
- ☐ CHANGE

ADDITIONAL TEACHER NAMES
1. _____
2. _____
3. _____

TEACHER NUMBERS

ADD THESE STRANDS/OBJECTIVES

NOTES

ACTION
- ☐ ADD
- ☐ DELETE

1.
2.
3.
4.

CODE		STUDENT ID.				
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

STUDENT: SCHOOL YEAR:
TEACHER: BIRTH DATE:
LOCATION: SEX:

CBIS DAILY ATTENDANCE REGISTER

DIRECTIONS FOR MARKING

1. Use No. 2 black lead pencil only.
2. Make heavy black marks that fill the bubble completely.
3. Erase cleanly any marks you wish to change.
4. Make no stray marks on this form.

Example below shows how to mark a student excused for one half day on the 94th school day.

EXAMPLE	DAY	ABSENT CODE
	94	● U X ● T
	95	E U X ½ T

DAY	ABSENT CODE	DAY	ABSENT CODE	DAY	ABSENT CODE	DAY	ABSENT CODE	DAY	ABSENT CODE	DAY	ABSENT CODE	DAY	ABSENT CODE	DAY	ABSENT CODE
1	E U X ½ T	31	E U X ½ T	61	E U X ½ T	91	E U X ½ T	121	E U X ½ T	151	E U X ½ T	181	E U X ½ T	211	E U X ½ T
2	E U X ½ T	32	E U X ½ T	62	E U X ½ T	92	E U X ½ T	122	E U X ½ T	152	E U X ½ T	182	E U X ½ T	212	E U X ½ T
3	E U X ½ T	33	E U X ½ T	63	E U X ½ T	93	E U X ½ T	123	E U X ½ T	153	E U X ½ T	183	E U X ½ T	213	E U X ½ T
4	E U X ½ T	34	E U X ½ T	64	E U X ½ T	94	E U X ½ T	124	E U X ½ T	154	E U X ½ T	184	E U X ½ T	214	E U X ½ T
5	E U X ½ T	35	E U X ½ T	65	E U X ½ T	95	E U X ½ T	125	E U X ½ T	155	E U X ½ T	185	E U X ½ T	215	E U X ½ T
6	E U X ½ T	36	E U X ½ T	66	E U X ½ T	96	E U X ½ T	126	E U X ½ T	156	E U X ½ T	186	E U X ½ T	216	E U X ½ T
7	E U X ½ T	37	E U X ½ T	67	E U X ½ T	97	E U X ½ T	127	E U X ½ T	157	E U X ½ T	187	E U X ½ T	217	E U X ½ T
8	E U X ½ T	38	E U X ½ T	68	E U X ½ T	98	E U X ½ T	128	E U X ½ T	158	E U X ½ T	188	E U X ½ T	218	E U X ½ T
9	E U X ½ T	39	E U X ½ T	69	E U X ½ T	99	E U X ½ T	129	E U X ½ T	159	E U X ½ T	189	E U X ½ T	219	E U X ½ T
10	E U X ½ T	40	E U X ½ T	70	E U X ½ T	100	E U X ½ T	130	E U X ½ T	160	E U X ½ T	190	E U X ½ T	220	E U X ½ T
11	E U X ½ T	41	E U X ½ T	71	E U X ½ T	101	E U X ½ T	131	E U X ½ T	161	E U X ½ T	191	E U X ½ T	221	E U X ½ T
12	E U X ½ T	42	E U X ½ T	72	E U X ½ T	102	E U X ½ T	132	E U X ½ T	162	E U X ½ T	192	E U X ½ T	222	E U X ½ T
13	E U X ½ T	43	E U X ½ T	73	E U X ½ T	103	E U X ½ T	133	E U X ½ T	163	E U X ½ T	193	E U X ½ T	223	E U X ½ T
14	E U X ½ T	44	E U X ½ T	74	E U X ½ T	104	E U X ½ T	134	E U X ½ T	164	E U X ½ T	194	E U X ½ T	224	E U X ½ T
15	E U X ½ T	45	E U X ½ T	75	E U X ½ T	105	E U X ½ T	135	E U X ½ T	165	E U X ½ T	195	E U X ½ T	225	E U X ½ T
16	E U X ½ T	46	E U X ½ T	76	E U X ½ T	106	E U X ½ T	136	E U X ½ T	166	E U X ½ T	196	E U X ½ T	226	E U X ½ T
17	E U X ½ T	47	E U X ½ T	77	E U X ½ T	107	E U X ½ T	137	E U X ½ T	167	E U X ½ T	197	E U X ½ T	227	E U X ½ T
18	E U X ½ T	48	E U X ½ T	78	E U X ½ T	108	E U X ½ T	138	E U X ½ T	168	E U X ½ T	198	E U X ½ T	228	E U X ½ T
19	E U X ½ T	49	E U X ½ T	79	E U X ½ T	109	E U X ½ T	139	E U X ½ T	169	E U X ½ T	199	E U X ½ T	229	E U X ½ T
20	E U X ½ T	50	E U X ½ T	80	E U X ½ T	110	E U X ½ T	140	E U X ½ T	170	E U X ½ T	200	E U X ½ T	230	E U X ½ T
21	E U X ½ T	51	E U X ½ T	81	E U X ½ T	111	E U X ½ T	141	E U X ½ T	171	E U X ½ T	201	E U X ½ T	231	E U X ½ T
22	E U X ½ T	52	E U X ½ T	82	E U X ½ T	112	E U X ½ T	142	E U X ½ T	172	E U X ½ T	202	E U X ½ T	232	E U X ½ T
23	E U X ½ T	53	E U X ½ T	83	E U X ½ T	113	E U X ½ T	143	E U X ½ T	173	E U X ½ T	203	E U X ½ T	233	E U X ½ T
24	E U X ½ T	54	E U X ½ T	84	E U X ½ T	114	E U X ½ T	144	E U X ½ T	174	E U X ½ T	204	E U X ½ T	234	E U X ½ T
25	E U X ½ T	55	E U X ½ T	85	E U X ½ T	115	E U X ½ T	145	E U X ½ T	175	E U X ½ T	205	E U X ½ T	235	E U X ½ T
26	E U X ½ T	56	E U X ½ T	86	E U X ½ T	116	E U X ½ T	146	E U X ½ T	176	E U X ½ T	206	E U X ½ T	236	E U X ½ T
27	E U X ½ T	57	E U X ½ T	87	E U X ½ T	117	E U X ½ T	147	E U X ½ T	177	E U X ½ T	207	E U X ½ T	237	E U X ½ T
28	E U X ½ T	58	E U X ½ T	88	E U X ½ T	118	E U X ½ T	148	E U X ½ T	178	E U X ½ T	208	E U X ½ T	238	E U X ½ T
29	E U X ½ T	59	E U X ½ T	89	E U X ½ T	119	E U X ½ T	149	E U X ½ T	179	E U X ½ T	209	E U X ½ T	239	E U X ½ T
30	E U X ½ T	60	E U X ½ T	90	E U X ½ T	120	E U X ½ T	150	E U X ½ T	180	E U X ½ T	210	E U X ½ T	240	E U X ½ T

NCS Trans-Optic F3363-54321 TM

CBIS PROGRAM DESIGN FORM

1. Mark the bubble beside each objective you wish to assign to this child's program.
2. Use #2 black lead pencil only.
3. Make heavy black marks that fill bubble completely.
4. Make no stray marks on this form.

CODE | STUDENT ID.

STUDENT:
TEACHER:

PROGRAM:
LOCATION:

PAGE

STRAND/OBJECTIVES

CODE 00 | STUDENT ID. 07476

STUDENT: GAIL ADAMS
TEACHER: JANEY HEWITT

PROGRAM: JUNIOR HIGH EDUCABLE MENTALLY
LOCATION: C•S•I•U• = COMPUTER SERVICES

STRAND/OBJECTIVES 1977-78

13-22	14-02	14-45	15-29	15-72	17-26	19-18	20-42	22-18	23-35	24-17
13-23	14-03	14-46	15-30	15-73	17-27	19-19	20-43	22-19	23-36	24-18
13-24	14-04	14-47	15-31	15-74	17-28	20-01	20-44	22-20	23-37	24-19
13-25	14-05	14-48	15-32	15-75	17-29	20-02	21-01	22-21	23-38	24-20
13-26	14-06	14-49	15-33	16-01	18-01	20-03	21-02	22-22	23-39	24-21
13-27	14-07	14-50	15-34	16-02	18-02	20-04	21-03	22-23	23-40	24-22
13-28	14-08	14-51	15-35	16-03	18-03	20-05	21-04	22-24	23-41	24-23
13-29	14-09	14-52	15-36	16-04	18-04	20-06	21-05	22-25	23-42	24-24
13-30	14-10	14-53	15-37	16-05	18-05	20-07	21-06	22-26	23-43	24-25
13-31	14-11	14-54	15-38	16-06	18-06	20-08	21-07	23-01	23-44	24-26
13-32	14-12	14-55	15-39	16-07	18-07	20-09	21-08	23-02	23-45	24-27
13-33	14-13	14-56	15-40	16-08	18-08	20-10	21-09	23-03	23-46	24-28
13-34	14-14	14-57	15-41	16-09	18-09	20-11	21-10	23-04	23-47	24-29
13-35	14-15	14-58	15-42	16-10	18-10	20-12	21-11	23-05	23-48	24-30
13-36	14-16	14-59	15-43	16-11	18-11	20-13	21-12	23-06	23-49	24-31
13-37	14-17	15-01	15-44	16-12	18-12	20-14	21-13	23-07	23-50	24-32
13-38	14-18	15-02	15-45	16-13	18-13	20-15	21-14	23-08	23-51	24-33
13-39	14-19	15-03	15-46	16-14	18-14	20-16	21-15	23-09	23-52	24-34
13-40	14-20	15-04	15-47	17-01	18-15	20-17	21-16	23-10	23-53	24-35
13-41	14-21	15-05	15-48	17-02	18-16	20-18	21-17	23-11	23-54	24-36
13-42	14-22	15-06	15-49	17-03	18-17	20-19	21-18	23-12	23-55	24-37
13-43	14-23	15-07	15-50	17-04	18-18	20-20	21-19	23-13	23-56	24-38
13-44	14-24	15-08	15-51	17-05	18-19	20-21	21-20	23-14	23-57	24-39
13-45	14-25	15-09	15-52	17-06	18-20	20-22	21-21	23-15	23-58	24-40
13-46	14-26	15-10	15-53	17-07	18-21	20-23	21-22	23-16	23-59	24-41
13-47	14-27	15-11	15-54	17-08	18-22	20-24	21-23	23-17	23-60	24-42
13-48	14-28	15-12	15-55	17-09	19-01	20-25	22-01	23-18	23-61	24-43
13-49	14-29	15-13	15-56	17-10	19-02	20-26	22-02	23-19	24-01	24-44
13-50	14-30	15-14	15-57	17-11	19-03	20-27	22-03	23-20	24-02	24-45
13-51	14-31	15-15	15-58	17-12	19-04	20-28	22-04	23-21	24-03	24-46
13-52	14-32	15-16	15-59	17-13	19-05	20-29	22-05	23-22	24-04	24-47
13-53	14-33	15-17	15-60	17-14	19-06	20-30	22-06	23-23	24-05	24-48
13-54	14-34	15-18	15-61	17-15	19-07	20-31	22-07	23-24	24-06	24-49
13-55	14-35	15-19	15-62	17-16	19-08	20-32	22-08	23-25	24-07	25-01
13-56	14-36	15-20	15-63	17-17	19-09	20-33	22-09	23-26	24-08	25-02
13-57	14-37	15-21	15-64	17-18	19-10	20-34	22-10	23-27	24-09	25-03
13-58	14-38	15-22	15-65	17-19	19-11	20-35	22-11	23-28	24-10	25-04
13-59	14-39	15-23	15-66	17-20	19-12	20-36	22-12	23-29	24-11	25-05
13-60	14-40	15-24	15-67	17-21	19-13	20-37	22-13	23-30	24-12	25-06
13-61	14-41	15-25	15-68	17-22	19-14	20-38	22-14	23-31	24-13	25-07
13-62	14-42	15-26	15-69	17-23	19-15	20-39	22-15	23-32	24-14	25-08
13-63	14-43	15-27	15-70	17-24	19-16	20-40	22-16	23-33	24-15	25-09
14-01	14-44	15-28	15-71	17-25	19-17	20-41	22-17	23-34	24-16	25-10

CBIS PROGRAM DESIGN FORM

1. Mark the bubble beside each objective you wish to assign to this child's program.
2. Use #2 black lead pencil only.
3. Make heavy black marks that fill bubble completely.
4. Make no stray marks on this form.

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NCS Trans-Optic F3364-5432T

CBIS PROGRESS REPORTING FORM

STUDENT:
TEACHER:
LOCATION:

STUDENT ID:
RATING PD.:
PAGE NO.:

RATING PD. ➡ I	1	2	3	4	STRAND/OBJECTIVE
PRIOR RATINGS					
CORRECTIONS					
PRIOR RATINGS					
CORRECTIONS					
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CORRECTIONS					

Gail Adams
Janey Hewitt
CSIU Computer Services

07476

Initial

CBIS PROGRESS REPORTING FORM

STUDENT: Gail Adams
TEACHER: Janey Hewitt
LOCATION: CSIU Computer Services

STUDENT ID: 07476
RATING PD.: Initial
PAGE NO.: 1

RATING PD.	I	1	2	3	4	STRAND/OBJECTIVE		1	2	3	4	P'	61	62	63	71	72	81	82
PRIOR RATINGS																			
CORRECTIONS						13-30	Gestures object function	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						13-44	Describes action pictures	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						13-60	Generalizes word use	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						14-16	Uses conjunction and	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						14-29	Uses isn't, won't	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						14-40	Uses words which quantify	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						16-11	Indicates information about environment home	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						17-13	Identifies positional relationships of objects	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						17-20	Traces forms	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						18-08	Observes pedestrian safety practices	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						18-21	Rides bicycle safely	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						19-12	Matches picture to word	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						20-10	Uses different sounds of c	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						20-21	Sequences events	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						20-35	Reads aloud	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						21-07	Prints name	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						22-01	Writes name	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						23-01	Spells own name	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						24-12	Sequences numbers	O	O	O	O	O	O	O	O	O	O	O	O
PRIOR RATINGS																			
CORRECTIONS						25-09	Divides two-place numbers by one-place number	O	O	O	O	O	O	O	O	O	O	O	O

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